

**IN THE CLAIMS:****Claims 1-6 (Canceled)**

7. (Previously Presented) A SAW identification tag, comprising:

a piezoelectric substrate having a SAW transducer located thereon;

twelve groups of slots arranged by both pulse position and phase position on said substrate, said groups separated by dead spaces; and

a number of reflectors distributed among said slots such that said reflectors encode a number by both pulse position and phase position, said number at least 96 bits long.

8. (Previously Presented) A surface acoustic wave (SAW) identification tag, comprising:

a piezoelectric substrate having a SAW transducer located thereon, said SAW transducer configured to produce a SAW having a frequency of between two and three gigahertz;

a group of slots arranged by both pulse position and phase position on said substrate; and

a number of reflectors distributed among said slots such that said reflectors encode a number by both pulse position and phase position.

**Claims 9-18 (Canceled)**

19. (Previously Presented) A method of operating a surface acoustic wave (SAW) identification tag, comprising:

exciting a SAW transducer located on a piezoelectric substrate to create a SAW;

causing said SAW to reflect from reflectors distributed among twelve groups of slots arranged by both pulse position and phase position on said substrate, said groups separated by dead spaces; and

demodulating reflected portions of said SAW to yield a number encoded by both pulse position and phase position, said number at least 96 bits long.

20. (Previously Presented) A method of operating a surface acoustic wave (SAW) identification tag, comprising:

exciting a SAW transducer located on a piezoelectric substrate to create a SAW, said SAW having a frequency of between two and three gigahertz;

causing said SAW to reflect from reflectors distributed among a group of slots arranged by both pulse position and phase position on said substrate; and

demodulating reflected portions of said SAW to yield a number encoded by both pulse position and pulse position.

Claims 21-30 (Canceled)

31. (Previously Presented) A method of manufacturing a surface acoustic wave (SAW) identification tag, comprising:

forming a SAW transducer on a piezoelectric substrate; and  
depositing reflectors among twelve groups of slots, said groups separated by dead spaces  
and said reflectors arranged by both pulse position and phase position on said substrate and encoding  
a number at least 96 bits long by both pulse position and phase position.

32. (Previously Presented) A method of manufacturing a surface acoustic wave (SAW)  
identification tag, comprising:

forming a SAW transducer on a piezoelectric substrate, said SAW transducer configured  
to produce a SAW having a frequency of between two and three gigahertz; and

depositing reflectors among a group of slots arranged by both pulse position and phase  
position on said substrate, said reflectors encoding a number by both pulse position and phase  
position.

Claims 33-36 (Canceled)